Bonneville Power Administration
Power Function Review Technical Workshop
Conservation and Renewables Costs

February 8, 2005
BPA Rates Hearing Room, Portland, Oregon
Approximate Attendance: 40

[The handouts for this meeting are available at: www.bpa.gov/power/review.]

Opening Remarks

Michelle Manary (BPA) went through several housekeeping announcements and thanked participants for questions submitted after the last workshop. We will post all of the questions on the website along with our responses, she said. Manary also noted that handouts for the March 1 workshop would be posted later than usual due to a management-level meeting February 28.

A.M. Agenda: Conservation

John Pyrch (BPA) began his presentation on BPA's conservation programs and initiatives with a run through the discussion outline. He noted that BPA has been involved in conservation for over 20 years. I won't go through the background, but there is information about regional and BPA accomplishments in the handout, Pyrch said.

PBL's "balanced scorecard" supports the conservation program, he said, reading several pertinent statements from the 2005-2011 strategy map developed last summer. A statement labeled PF S3, for example, states that BPA "ensures development of all cost-effective energy efficiency in the loads BPA serves, facilitates development of regional renewable resources, and adopts cost-effective non-wires solutions to transmission expansion," Pyrch said.

BPA's Record of Decision (ROD) for the Regional Dialogue issued last week contains five principles BPA will pursue in its conservation program, he continued. Among the principles, "BPA will use the Council's plan to identify the regional cost-effective conservation targets upon which the agency's share (approximately 40 percent) of cost-effective conservation is based," Pyrch said.

Kevin Clark (SCL) asked about the treatment of investor-owned utilities (IOUs) under that principle. Does it figure them in? he asked. No, it doesn't, Pyrch responded. Clark pointed out that if the IOUs are eligible for the conservation and renewables discount (C&RD), it's as though BPA is serving another 2,200 MW of load.

Steve Weiss (NWEC) said since the IOU customers in effect help pay for the conservation BPA does, they should get the benefit of participating in the programs. But Kevin O'Meara (PPC) questioned that view, saying it presumes conservation is "a dead weight loss" rather than a resource. There are two pieces to it, Weiss responded. Conservation helps everyone since it reduces the need for resources, but "if I am paying in rates for a program, I should be able to participate in the program," he said.

The IOUs benefit from conservation by the fact BPA is not acquiring new resources, O'Meara said. If IOUs are eligible for C&RD, it would be transferring money from publics to privates, he indicated.

I'd like to see the math on this principle, with the assumed IOU and DSI service levels, Clark requested. Pyrch said that could be provided.

Pyrch moved on to the second principle, which states that "the bulk of the conservation to be achieved is best pursued and achieved at the local level," and the third, "BPA will seek to meet its conservation goals at the lowest possible cost to BPA."

Does the cost-effectiveness principle rule out partial payment for measures? Clark asked. That's right, Pyrch said. If a measure is not on the Council's list of cost-effective measures, we won't pay an incentive, he said. Pyrch noted that the conservation work group recommended making partial payment for some measures that are not on the Council's list of cost-effective measures, but BPA has not adopted that position. We plan to respond to the work group recommendations and will put our post-2006 conservation proposal out for comment, he added.

Is your statement on "lowest possible cost to BPA" a reference to the agency or to your end-use customers? Jim Litchfield (LCG, Inc.) asked. It's both, Pyrch responded. BPA as an agency, is the first consideration, but we will strive to keep costs low for the region, he stated.

Pyrch went over the fourth and fifth principles, which relate to BPA's aim to provide appropriate levels of funding for local administrative support, as well as education, outreach and low-income weatherization.

Do the low-income weatherization programs have to be cost-effective? O'Meara asked. No, they don't, Pyrch responded. So that is a departure from your cost-effectiveness principle, O'Meara commented.

"Low-income weatherization has extremely high non-energy benefits," so it is cost-effective, Weiss responded. I was just pointing out that there are exceptions to the cost-effectiveness principle, O'Meara said. The work group recommended low-income weatherization be eligible for rate credit money if the measures are cost-effective, Pyrch noted.

What is the process for determining the appropriate levels of funding referred to in the principles? Weiss asked. This workshop is part of it, Pyrch responded. At some point, could you make clear what decisions are being made here, Clark requested.

Many substantive decisions are being made elsewhere, Michael Early (Alcoa/CFAC) pointed out. The Council set the conservation targets and cost-effectiveness standards, and there was a prior work group, he said. What is movable in this process? he asked.

I am going over the 2007-2009 budget, and we will take your input and feedback, consider it and get back to you with a response, Pyrch clarified. He went on to explain a table of delivered and planned savings from BPA's existing conservation programs. We are on target to meet 220 MW of conservation during this rate period, Pyrch said. The savings are a result of the C&RD, ConAug, market transformation, low income weatherization and federal reimbursable programs, he pointed out, adding that the fiscal year (FY) 2001-2004 savings are actuals and the 2005-2006 are projections.

Does this incorporate price-induced conservation? O'Meara asked. It does not, Pyrch responded. Will you generate an estimate of price-induced conservation? O'Meara queried. We are looking at what we call "naturally occurring" conservation, Pyrch replied.

You have "jacked up" rates 40 percent in recent years, and it is having an effect on consumption, O'Meara stated. That should be counted, he said. As long as BPA rates are above 22 mills, your loads will be down, O'Meara added.

Asked about the kind of participation and success BPA is seeing in its programs, Pyrch said all but one of BPA's utility customers is participating in C&RD. About 22 percent of the customers reporting accomplishments have used all of their available C&RD credits and 20 percent have used over 80 percent, he reported. With ConAug, we have 65 contracts with 40 to 45 customers, Pyrch said. He said he would provide more information on the accomplishments of the program.

Pyrch went over a table of the regional conservation acquisition targets. According to the Council targets, the region needs to come up with 700 MW of conservation during the 2005-2009 period, he said. Of that, 40 percent or 56 aMW per year is BPA's share, Pyrch explained.

Weiss suggested BPA's calculation of its share should include load growth for partial requirements customers. Why limit the target to the load you serve? he asked. Why not figure in the load growth for partial requirements customers since it's likely to come back to BPA, Weiss said.

O'Meara said the PPC allocation scheme uses 2002 load numbers so conservation activities would not decrement a utility's share. Load growth would be exposed to "the full price signal" so there's even greater incentive to do more conservation, he explained.

That may be the PPC proposal, but BPA hasn't accepted it, Weiss responded. If BPA intends to adopt it, perhaps the agency could declare that intention, he added.

Litchfield suggested BPA take a closer look at the 56 aMW target. "That's a simplistic view of the world," he said, noting that conservation potential varies across the region. We recognize the potential isn't equally distributed throughout the region, Pyrch acknowledged. We'll "drill down" into that number and see how best we can meet the target, he said. Could the 56 aMW change based on a more realistic breakdown of what's available? Litchfield asked. "That's a tough one," Pyrch replied. We've talked to the Council about that, but the question is unresolved, he said.

Mark Thompson (PPC) asked about the lost vs. non-lost opportunity conservation potential for various customer sectors depicted on Pyrch's bar graph. Tom Eckman (NPCC) said the Council did not identify lost opportunity for the agricultural and industrial sectors because new development in those areas "is probably already price responsive." But in the commercial and residential sectors, information is key, and it takes time for new programs to penetrate the market, he said. Greater penetration will occur over time as the programs ramp up, Eckman explained.

The non-lost opportunity targets don't increase because they reflect the most we think we can get, Charlie Grist (NPCC) added. We limited the maximum rate of acquisition in those sectors to what we thought was practical, he said. Also, as we use up the cheaper energy efficiency measures, the rate of penetration falls off, Grist said.

Pyrch reviewed a graph of BPA's annual delivered conservation savings and the 2007-2009 targets. We are aiming for 40 MW in 2006, which is below the Council's target, he pointed out.

How do you propose to achieve the 2006 target? Clark asked. Industry will be a focus, and we will try for more industrial ConAug, making additional investments there, Pyrch replied. We are also thinking about new initiatives – we might do another compact fluorescent coupon program, for example – we're looking at a lot of ideas, he said.

You're now 16 MW per year behind the Council's target, Weiss pointed out. How do you propose to catch up? he asked. Should you target more than 56 aMW in 2007-2009? Weiss queried.

We won't necessarily meet the target in every year, but we're proposing to meet the total amount over the rate period, Pyrch replied. We'll have to see where we are as we go along and make adjustments, he added.

BPA made a commitment to meet the Council target so you should ramp up to meet an additional 30 MW beyond what you are targeting in the next couple of years, Weiss said. "It's cheap stuff," and we should go after it, he indicated. Comment noted, Pyrch replied.

My comment on price-induced conservation applies here, O'Meara said. Rate increases decrease loads – "it may be a destructive way to do it," but that's what happens, he stated.

With regard to the conservation target, Eckman said the Council took in to account changes in markets and rates since the last plan was developed. We are going from where we are today, he said. We don't count load curtailment, Eckman acknowledged. If people are induced to reduce load, it's not called conservation, he stated.

Why don't you count it? Early asked. If a price increase causes me to move a plant to Georgia, why don't you account for that? he queried. Under the law, we count things that make you more efficient, not things that cause you to reduce load, Eckman responded. The underlying price forecast incorporates loads and rates – "price elasticity" is taken into account in that way, he added.

There is a distinction between measures to be more efficient and things that reduce load, Howard Schwartz (WA CTED) said. The Council's job is to look at efficiency measures that would be cost-effective compared to something else, he said. Schwartz also pointed out that trying to figure out BPA's share of reduced demand would not be an easy task nor would determining how much reduction was due to BPA rate increases and how much was due to other factors.

Pyrch said BPA is boosting its 2006 target to 40 MW from 22 MW to keep up the pace of conservation. It's not something you can easily turn off and on, and we don't want to go through "the roller coaster" again, he said.

If you have programs that are successful going on now, "why reinvent them," especially in the middle of a 10-year contract? "Why fix what ain't broken," Clark asked.

The conservation work group recommended keeping things more similar than dissimilar to what we have now, Mike Weedall (BPA) responded. We think we can improve the products we're offering, he said.

BPA reduced its conservation program and staffing in the late 1990s, Pyrch said, presenting a graph of staffing numbers since 1993. In 1993, BPA had 233 full-time positions and 100 contractors on its conservation staff; by 2000, those numbers were down to 60 and 6.5, he pointed out. We're in "a steady state" now, and hope to stay that way into the next rate period, Pyrch said.

I'm nervous about your ability to meet the conservation targets with the same FTE you now have, Weiss said. I'd like to talk about "a backstop" in case your ambitious plan fails, he said.

If you look at BPA's delivery of conservation and the staffing levels, it's clear that staffing is not a good indicator of achievement, Litchfield pointed out. You went from 5 MW in 2000 to 53 MW in 2002 without a change in staffing level, he said. We've gotten very creative and collaborative with our conservation partners, Pyrch responded.

But less staff has meant there is no regional tracking going on, no evaluations and no research and development, Eckman responded. Be careful about thinking you can continue a rigorous program with this lower staffing and budget level, he advised.

Pyrch went over a graph illustrating the conservation component of the PBL expense level. An annual conservation expense budget of $71 million is 3 percent of the total $2.5 billion to $2.7 billion total PBL expense budget, he said. Succeeding tables showed the breakdown of expenses among conservation programs.

Weiss said the tables should reflect revenue generated by conservation. You should figure out how much money the program generates and credit it against the program costs, he suggested. Clark asked for the math behind the C&RD breakdown ($30 million conservation, $6 million renewables) on the program expense table. Pyrch said he would provide it.

The tables on pages 11-13 display historical and projected 2007-2009 expenses, as well as program components for the new rate period. The FY 2007-2009 expense budgets are open for review, comment and discussion in the PFR, Pyrch said. Page 14 provides the historical and projected FY 2007-2009 conservation capital budgets. Again, the FY 2007-2009 capital budget is open for review and comment under this PFR process, Pyrch said. In response to a question about whether the conservation target is open to discussion, Pyrch called the 56 aMW "a given." We said in the Regional Dialogue ROD we would go with the Council's target, he stated.

You made that decision before you knew what the measures would be, Jeff Nelson (SUB) commented. The Council had a two-year public process when it developed the targets, Pyrch pointed out. It was a regional process open to participation, he said. But not everything was resolved in it, Nelson said. "We're comfortable with what the Council put forward," Pyrch stated.

We worked closely with the Council, and we didn't hear in any of the groups that people thought the potential was unrealistic, Weedall added. "We think we've been down that road," he said of developing the target.

The issue of an appropriate target is linked to the measures and that is linked to funding, Nelson said. If you say the target is 56 aMW, other issues need to be resolved before we say we have a reasonable program, he indicated. Nelson also said there is a disparity between the BPA numbers and what utilities are expected to achieve.

We have said we'd accept the Council target for our share of what should be done with conservation, Weedall said. Let's work on whether we have the right mix of dollars and programs to meet the target, he urged.

What's negotiable here? Scott Brattebo (PacifiCorp) asked. We're looking for input on these budget numbers, Pyrch responded. Some may think we don't need as much money, others may think we don't have enough, he added.

Pyrch went through the historical numbers for the conservation program, categorized into five major groups of expenses, and budget projections for the 2007-2009 rate period. He also explained the types of expenses the categories include. From 1997 through 2006, we will have spent $579.2 million, and the 2007-2009 projection is $253.6 million, Pyrch reported. He said BPA is locked into some expenses, including the legacy contract closeouts, debt service payments, the low-income weatherization program (through 2006), and market transformation (through 2009) but others are open to discussion.

Weiss said TBL should pay for the savings related to non-wires solutions, and Pyrch said TBL pays for its share of the savings from several non-wires measures, including load control and demand exchange.

Asked how BPA would achieve the 56 aMW annually, Pyrch said bilateral contracts, a rate credit and market transformation would be the major program components. What would you get from low-income weatherization? Nelson asked. Those programs are run through state community action agencies, and "we view the savings as incidental," Pyrch responded. We met with these groups and heard "a strong plea" for more funding, so we have tried to build in more, he added.

Pyrch went over the conservation program capital budget, which is projected to be $32 million annually for the 2007-2009 rate period. Early asked for a table that would display the total conservation program, expense and capital, together. Staff agreed to provide the table. Pyrch explained how BPA arrived at $32 million in capital for conservation acquisition in 2007-2009. He noted that BPA wants the flexibility to move money between years and between conservation programs.

Has the treatment of the rate credit been decided? Litchfield asked. Pyrch said it had not. We'll follow up on that issue, he said. It's a fundamental question, Litchfield said. If the rate credit is changed to be part of the revenue requirement it means everyone pays you for it, and it sets up "a different psychology," he stated. You need to pay attention to how this is handled, Litchfield advised.

Is there going to be a decrement associated with the C&RD for customers? Clark asked. Weiss said Steve Wright told participants in a recent meeting that BPA wants to decrement a customer's purchase amount on the basis of the C&RD. "This is an active and ripe issue within the agency," Weedall stated. I can't tell you what's coming down the road on it, he said.

This is a question of "who's money this is" and that should bear on the response, Eckman commented. If you move the rate discount to the revenue requirement, it creates a different perception, he added.

Manary said she would find out in what forum the decrement/non-decrement, in/out of revenue requirement question would be decided. And find out if it applies to fixed purchase and/or full service and other contracts, Terry Mundorf (WPAG) requested.

Later in the meeting, Pyrch said BPA would issue its post-2006 conservation program proposal in mid-April. We will deal with the decrement and revenue requirement issues in that proposal, he reported. Pyrch said the proposal would also clarify the size of the rate credit. We will take 30 days of public comment on the proposal, and the decision that results will go into the rate case, Pyrch explained.

The outcome of those questions has implications for how much money it could take BPA to get to its conservation targets, Weiss commented.

It is not "customer friendly" to separate the issues out and split them into another process, Clark said. Mundorf suggested BPA have a meeting when it releases the proposal to explain it. That's a good suggestion, Pyrch agreed.

Pyrch continued his presentation with a list of conservation program challenges and risks. He said BPA staff is working with Council staff to come up with a figure for how much naturally occurring conservation is taking place and determining whether that should affect the target. Litchfield suggested BPA rethink the target, looking at its customer groups. The 56 aMW may not be accurate given the makeup of your load, he said.

I can accept your optimism about meeting the conservation target with the 2007-2009 budget proposal if there is a process to re-evaluate if it doesn't happen, Weiss said. We need a backstop or a robust program, he stated. If you want to talk about a backstop, you have to reassess whether the 56 aMW is appropriate, Mundorf stated. That hasn't been done, he added.

Among the risks, Pyrch said BPA will be asked to fill in the amount if customers under-perform on delivering savings. We want to manage the delivery of MWs so that doesn't happen, he added. Stephany Watson (Krogh & Leonard for PGE) asked if the request for BPA to fill in was related to a contract commitment. Pyrch said it was not a contract, but a political issue. There is a risk and expectation that we need to be aware of, he responded. Is there a history of this happening? Watson asked. If you look at the table on page eight, you will see that conservation delivery went way down when BPA cut back its program, Pyrch pointed out.

He went over a list of cost-management opportunities. Among the opportunities, Pyrch said program costs would go down if BPA's future rate credit mechanism is based on what it costs to get measures installed rather than on the value to the system.

Pyrch wrapped up with the feedback BPA has gotten on its post-2006 conservation budget. The work group recommended a budget of $80 million a year to acquire 56 aMW annually, with an additional $1.6 million per year for infrastructure support, he said. There is significant concern the budget will be insufficient to meet the target, and the work group said BPA should be willing to adjust funding upward if progress toward the target lags, Pyrch said. The work group also offered a proposed program structure for post-2006, he noted.

Pyrch's handout recapped comments, including a joint comment from several entities that $106 million per year is likely to be needed to achieve the new target. PPC commented that the conservation acquisition budget should be revisited once a cost-effective measure list is available; PNGC supported the work group's recommendation (Eugene Rosolie (PNGC) clarified that PNGC viewed the $80 million as a ceiling on the conservation budget); and SCL said BPA would have trouble meeting its new target if it spends part of the $80 million on measures that are not cost-effective.

When will a decision be made on the budget? Schwartz asked. We'll take PFR comments until April 29, so "speak up now," and final budget decisions will be made after that, Pyrch indicated. He also reiterated there would that BPA will issue a post-2006 conservation proposal for public comment in mid-April.

This is just 3 percent of "the total big picture," Geoff Carr (NRU) pointed out. We may come back later with other comments once we have seen all of the pieces, he said.

I can't find a correlation between your historic budget numbers and what you have achieved, Early commented. I can't tell if your budget levels are reasonable or not, he said. Early suggested BPA provide a table to help people connect the budget levels to results. What if the market is lower and you have to cut the budget? he asked. Could you find 10 percent to cut in this budget? Early asked.

If you look at what happened in the last few years, when the Administrator asked us to do just that, you'll see "we've been very creative" and managed to achieve a lot, Weedall responded. What you see here is a balance of a lot of things – trying to connect staffing levels to MWs achieved is comparing apples and oranges, he indicated.

Has there been benchmarking of staff levels? Early asked. We can share things with you from around the country, "and we'll come out looking good," Weedall responded, noting that BPA's staff of 60 operates a larger program than the staff of 150 he managed at a retail utility.

Is there reason to believe that what has historically been accomplished at a cost higher than $1.43 million per MW can be made to work at this budget level? Schwartz asked. BPA needs to do a good job of showing it can get the job done at this level – "I'm skeptical that it's enough," Schwartz said.

If the IOUs participate, do their savings contribute toward the 56 aMW? Brent Barclay (Columbia River PUD) asked. No, they are not part of the load we serve, Pyrch replied. Barclay suggested that, depending on how the C&RD is handled, more money could go out, leaving less to pay for achieving the 56 aMW.

There are a lot of reasons conservation does or does not happen, Rosolie said. To say the reason is one particular thing is wrong, he said. In the same way, being wedded to 56 aMW is wrong, according to Rosolie. We need to be aware that there are a lot of variables, and we need to be flexible in how we look at this, he stated.

When we are in a recession, we need to do more conservation, Weiss said. It saves money on the power bill, and it gives BPA more kilowatts to sell, he stated. We need to consider it like we do the renewables program – it generates money, Weiss said.

Litchfield took issue with that comment. The Council levelizes the costs of conservation over a number of years, but there are "big upfront dollars" in the early years, he explained. The cost in the first year is way higher than the market, Litchfield said. In the front end, "it's not a moneymaker," he stated.

I'd like to restate our position that conservation and renewables should continue to be linked in any future rate credit, Annick Chalier (PPC) stated.

Eckman pointed out that the program costs BPA laid out for 2005-2006 don't match up well with the 2007-2009 proposal in terms of results. You've got a budget of $80 million annually for expense and $34 million for capital to achieve 40 aMW, he said. In the next rate period, you're looking for 56 aMW for $80 million and $32 million, Eckman said. That indicates you'll have to be much more efficient to reach the target, he stated.

P.M. Agenda: Renewables

Deb Malin (BPA) described the nearly 30-year history of BPA's renewable program, from the 1977 solar-monitoring network to the 2002 power purchase agreement for the Klondike project. In 1996, BPA committed to spend $15 million annually to acquire renewable resources, she said, listing several power purchase agreements for wind, solar and geothermal projects. Malin also noted that the nonprofit Bonneville Environmental Foundation (BEF) was formed in 1997. Four elements from BPA's "balanced scorecard" are applicable to the renewables program, she said, including PF S3, which refers specifically to facilitating the development of regional renewable resources.

The renewables program costs are included in BPA's revenue requirement, Malin explained. At $56 million annually including Fourmile Hill, renewables make up less than 2 percent of the total PBL budget, Malin said.

She noted a three-point BPA financial disclosure statement, indicating that much of the information in the handout is for discussion purposes only, before moving on to specific resource portfolio and budget information.

BPA's existing renewables portfolio totals 198 MW (nameplate capacity), with another 49.9 MW in limbo with the Fourmile Hill geothermal project in California, Malin explained. The energy from the renewable projects is sold separately from "the attributes," which include things like the "green" and "environmentally preferred" designations, she said.

We are in binding arbitration on Fourmile Hill because Calpine failed to file a required geothermal reservoir report on time, Malin reported. BPA is having internal discussions about the future of the Fourmile contract should the arbitration be decided in the agency's favor, she said. The arbitration is set to be complete by October, and the effect on rates may not be known before BPA develops its rate proposal, Malin acknowledged. If the project goes forward now, it could be at least 2008 before it comes on line, she said.

Malin went over a graph showing the online dates and MW size of the agency's nine renewable projects. No other wind projects are in the pipeline for BPA now, she said.

BPA runs one of the nation's largest wholesale renewable marketing programs and sells to over 40 utilities and three national marketers; sales total nearly $3 million per year in gross revenues, Malin continued. BPA's network wind integration service is used by four utilities, she said. Of the BPA-managed expenses, Malin said BPA purchases nearly one-third of the region's wind and funds some of the most pivotal research. The wind power purchases and program costs are projected to be $23.6 million in FY 2005, which is included in rates, she explained.

Revenues from the sale of energy and green premiums offset these costs, and we expect to net about $84,000 this fiscal year, Malin said. She noted that BPA uses the cost of a gas-fired combined-cycle combustion turbine (CCCT) as a surrogate for the long-run marginal cost (LRMC) of power in calculating the offset. The LRMC currently used is $4.00 gas, generating an offsetting value of $44.50 per MW, Malin said.

With regard to customer-managed expenses, she said, BPA is administering $6 million of renewables spending annually through the C&RD program. BPA has agreed with the region to act as "a backstop" if customers do not invest an average of $6 million annually in renewables over the rate period, according to Malin. We don't expect the backstop to be a topic because the commitment is likely to be met, she added.

How does your renewables program mesh with the Council's power plan? Rob Sirvaitis (PRM) asked. The BPA renewables program was not designed "in lockstep" with the Council's plan, Elliot Mainzer (BPA) responded. We are moving away from acquisition and into a facilitator role with renewables, Mainzer said, reiterating that the BPA program and the Council's plan are not closely tied.

Malin explained BPA's $21 million annual management target for renewables. This is a management target, not what is in rates, she clarified. Basically, we are looking for the cost of the renewable program expenses *minus* the LRMC of an equivalent amount of power (offset by the green premium revenues) to be less than $21 million annually, she said.

The $21 million was a negotiated number, Mainzer said. BPA said it would make a $15 million investment in above-market renewables – in other words, the net cost of everything was not to impact rates more than $15 million, he said. If you add to that the $6 million in backstop for customer investments, it's $21 million, Mainzer explained.

You haven't gotten close to an average of $15 million annually, Weiss pointed out.

Will updating the costs of a CCCT have any real affect if you're not acquiring any renewables? Clark asked. That's right, but "we have not 100 percent shut the door" on acquisition if an opportunity presents itself, Mainzer replied. We'd measure any new acquisition against the updated CCCT cost, he added.

Bill Drummond (WMG&T) questioned whether an agreement on renewables that was made when BPA power was $20 per MW is still valid with power at over $30 per MW.

Malin went over a description of how BPA manages to its $21 million annual target. Sirvaitis suggested BPA reword a statement that refers to "manage up to $21 million/year." The $21 million is a cap, so it should be stated more clearly to indicate that, he said.

Malin went over figures on a table of FY 2006-2009 forecasts, noting the costs with and without Fourmile Hill. We have a lean budget, with the only discretionary spending being $0.5 million, she said. Without the Fourmile Hill contract, you would have more flexibility, Drummond commented. Is the Fourmile contract language available? Watson asked. Manary said she would check on whether it is public record.

Malin moved on to the details of the renewable budget. Sirvaitis asked about the $31 million for Fourmile Hill geothermal power in 2007. If you divide that by the output, it's $70 per MW – that's a big number, he pointed out. Several people asked for clarification on the detailed table, trying to match the numbers with other tables.

You can't accurately refer to "losses or gains" when you're calculating the net cost of the program, since you are comparing the renewable power to a hypothetical CCCT, Lon Peters (PGP) said. Dave Hoff (PSE) asked for an explanation of the figures on line 30, entitled "net cost of renewables program." Those figures mean, for example in 2005 and 2006, where the table says $6.084 million and $6.066 million, "if the forward price for electricity meets $4 gas prices, the PF rate would be $6 million higher as a result of the renewable program," Mainzer explained. So that title doesn't accurately reflect what those figures mean, Hoff commented. Earlier, we had called it "Estimated Above-Market Cost for Renewables," Mainzer said. That's better, Hoff replied.

Malin called attention to footnotes for the detailed table. These are important explanations, she said.

How much could you get for the Fourmile Hill power? Carr asked. If we could sell it into the California market, we might realize some transmission savings and could potentially receive more for the power than we could at Mid-C, Mainzer said. The renewable credits associated with the project are also marketable, and they would potentially be more valuable in California, which has enacted renewable portfolio standard, he indicated.

How will these costs be affecting Slice? Nelson asked. All costs of the renewable program are incorporated into Slice as part of BPA's system costs, Allen Ingram (BPA) responded.

We all came in here wanting to know about ways to cut costs, Nelson said. "Some of us came with steak knives and some of us came with chainsaws," he added. But from what I've seen in this budget, "there's not much here to go after," Nelson said.

Malin went over the details of the renewable program support costs, including tasks like solar data collection, wind monitoring and anemometer maintenance. Could you tell us more about wind integration, Pete Peterson (PGE) asked. We said we'd integrate up to 450 MW of wind into the hydro system, Mainzer responded. We did research on how to do this, and we're putting together a contract for a pilot wind-forecasting project, he said. We are trying to keep the costs of integrating wind as low as possible, Mainzer added, noting that BPA has to date sold 10 MW of a wind-integration product.

Malin pointed out that the Maiden wind project remains in the budget because there is a potential $250,000 liability associated with the contract. We don't believe we will have to make that payment, she stated.

With regard to budget cuts during the rate period, Malin said $2 million was cut from renewables support programs to lower rates from FY 2004-2006. There were also large cuts to the acquisition budget, said, citing cuts of a 1,000 MW RFP and site-banking costs in 2002 and a 25 MW acquisition in the 2006 budget.

Recapping other changes, Malin noted that the online date for the Fourmile Hill project was moved out to FY 2007 and may be moved out even further. A BEF memorandum of agreement (MOA) provides for a base payment of $86,000 a year to the foundation ("a true-up" for 2003 contract modifications that were to BPA's benefit but harmed BEF) and directs 36 percent of green premiums to BEF for reinvestment in renewables, she explained. BEF has the advantage of being able to accept and leverage private funds for renewable development, which BPA cannot, Malin said. Was there a public process on the MOA? Early asked. No, Malin replied.

Uncertainties for renewables include risks that may increase the budget, such as the outcome with Fourmile Hill, she continued. The costs of the geothermal project include transmission, Malin said. If the project is delayed or goes away, it could cause the program budget to go down, she said. If we have new options as a result of the arbitration, we'll decide about spending the funds later, Malin indicated.

If you can't get a contract for the Fourmile Hill transmission through the PAC transformer, who is liable? Drummond asked. We'll get back to you on that, staff said.

Another uncertainty for renewables is system allocation – we don't know what load we'll serve, Malin said. The upcoming conservation ROD will determine if the rate incentives for conservation and renewables will be separate or combined, she pointed out. Either way, the $6 million for customers' renewable investment will remain in rates, Malin added.

The customers value the flexibility of having the C&R discount linked in rates, Chalier stated.

Are there other renewable proposals beyond this paper? Schwartz asked. For instance, the Council recommended an evaluation of wind potential, he said. This is our entire budget – we can't study more projects unless we are looking to acquire, Malin responded.

A participant suggested that all of the risks being presented as part of this and other workshop presentations be rolled into the last PFR workshop on risk mitigation.

The meeting adjourned at 3:30 p.m.

Follow-up questions and information requests

Responses to questions and requests for information received throughout this process will be posted on the Power Function Review Web site on a ongoing basis. The Web address is www.bpa.gov/power/review.

Conservation Program:

1. BPA's Record of Decision (ROD) for the Regional Dialogue issued last week contains principles BPA will pursue in its conservation program. Among the principles, "BPA will use the Council's plan to identify the regional cost-effective conservation targets upon which the agency's share (approximately 40 percent) of cost-effective conservation is based. Please provide the math on this principle, with the assumed IOU and DSI service levels.
2. What is the process for determining the appropriate level of funding referred to in BPA's principles.
3. Provide more information on the accomplishments of the conservation programs (i.e. number of ConAug utilities and aMW savings achieved).
4. Provide the math behind the C&RD breakdown ($30 million conservation, $6 million renewables) on the program expense table.
5. The conservation program capital budget is projected to be $32 million annually for the 2007-2009 rate period. Provide a table that would display the total conservation program, expense and capital, together.

Renewables Program:

1. Is the Fourmile contract language available?
2. The costs of the Fourmile Hill geothermal project are highly dependent on transmission. If you can't get a transmission contract, who is liable?